

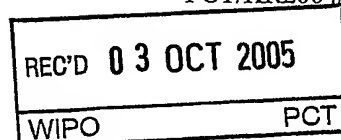
## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY



(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference 6010244-PCT	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/KR2004/003220</b>	International filing date( <i>day/month/year</i> ) <b>09 DECEMBER 2004 (09.12.2004)</b>	Priority date ( <i>day/month/year</i> )	09 DECEMBER 2003 (09.12.2003)
International Patent Classification (IPC) or national classification and IPC  <b>IPC7 H04M 1/23</b>			
Applicant  <b>JO, Won-Hyung</b>			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:           <ul style="list-style-type: none"> <li><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> </li> <li>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).</li> </ul>
4. This report contains indications relating to the following items: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the report</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input type="checkbox"/> Box No. VI Certain documents cited</li> <li><input type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul>

Date of submission of the demand  <b>21 JUNE 2005 (21.06.2005)</b>	Date of completion of this report  14 SEPTEMBER 2005 (14.09.2005)
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer  UHM, In Kwon  Telephone No. 82-42-481-5712 

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/003220

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☒ This report is based on translations from the original language into the following language English which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3 and 23.1(b))
    - ☒ publication of the international application (under Rule 12.4)
    - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
  
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*
  - ☒ the international application as originally filed/furnished
  - ☐ the description:
    - pages \_\_\_\_\_ as originally filed/furnished
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - ☐ the claims:
    - pages \_\_\_\_\_ as originally filed/furnished
    - pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - ☐ the drawings:
    - pages \_\_\_\_\_ as originally filed/furnished
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - ☐ the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
  
3. ☐ The amendments have resulted in the cancellation of:
  - ☐ the description, pages \_\_\_\_\_
  - ☐ the claims, Nos. \_\_\_\_\_
  - ☐ the drawings, sheets \_\_\_\_\_
  - ☐ the sequence listing (*specify*): \_\_\_\_\_
  - ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
  
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - ☐ the description, pages \_\_\_\_\_
  - ☐ the claims, Nos. \_\_\_\_\_
  - ☐ the drawings, sheets \_\_\_\_\_
  - ☐ the sequence listing (*specify*): \_\_\_\_\_
  - ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/003220

## Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1-18	YES
	Claims	NONE	NO
Inventive step (IS)	Claims	1-18	YES
	Claims	NONE	NO
Industrial applicability (IA)	Claims	1-18	YES
	Claims	NONE	NO

### 2. Citations and explanations (Rule 70.7)

#### 1. NOVELTY AND INVENTIVE STEP

Reference is made to the following documents:

- D1 : KR 2002-63068 A ( JO WON HYUNG ET AL.) 1 August 2002
- D2 : JP 09-116605 A ( SONY CORPORATION ) 2 May 1997
- D3 : JP 11-220523 A ( SANYO ELECTRIC CO., LTD.) 10 August 1999
- D4 : JP 2003-15808 A ( KATO SHUNJI ) 17 January 2003

The subject matter of claim 1-10 is considered to be a input apparatus including a keypad comprising consonant letters marked on each key of the keypad, and vowel letters arranged in at four directions along the sliding direction of the keypad.

D1 discloses an apparatus and an method of inputting a character using a keypad such as a joy stick and a touch screen in which a plurality of signal sensing units are installed.

D2 discloses the miniaturized telephone set wherein three operation keys have operating functions to which an entry function of numerals and symbols corresponding to four operating positions is assigned. A discrimination means discriminates any operated key among the operation keys and also discriminates a numeral and/or a symbol entered by the operation of the operation key.

D3 discloses a communication terminal including a keypad and a touch panel entry device which provides an output of a signal denoting the presence of contact to its entry plane and a moving amount and a moving direction of a part which is in contact with the input plane.

(Continued on Supplement Box)

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

(continuation of Box V)

D4 disclose a touch-type key input apparatus comprising a plurality of character keys having at least two characters on its surface, an input discrimination means for detecting that a character key is touched and capable of discriminating the movement direction in bar touch input to be inputted, a character selection/output means for selecting and outputting a character displayed at the movement direction side with respect to a character key reference position in accordance with the movement direction discriminated by the input discrimination means.

The prior arts do not disclose the subject matter of claims 1-10. Even though the prior arts may be combined, it is not obvious to a skilled person in a mobile communication to derive the subject matter of claims 1-10 from the prior arts.

Therefore, the subject matter of claims 1-10 is considered to have novelty and an inventive step.

The subject matter of claims 11-18 relates to manufacturing method of the subject matter of claims 1-10. Therefore, the subject matter of claims 11-18 is considered to have novelty and an inventive step.

## 2. INDUSTRIAL APPLICABILITY

Claims 1-18 are considered to have industrial applicability.